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EXAMINER	
RICE, ELISA M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,587	CLARE ET AL.	
	Examiner	Art Unit	
	ELISA M. RICE	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4/3/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to applicant's amendment and remarks received on April 3, 2008. Claims 1-23 are currently pending.

Response to Arguments

Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection which were necessitated by the amendments made by Applicant. As a result of the amendments presented which change the scope of the claims (i.e. "steps"), in the present Office Action, Examiner is interpreting the claims where the sub-images are within a single image rather than separate images as previously interpreted.

Applicant's Remarks: "As specified by Deshpande (column 12, lines 35-37), the client application "requests the data needed at the desired resolution and displays the higher-resolution image 116 to the user in graphics window 110. In contrast, in a system in accordance with the present invention, all the data necessary to decode all intermediate resolutions that can be extracted from the multi-resolution image representation are obtained before any user request to view a given resolution." (page 9, first and second paragraph)

Examiner's Response: The claimed recitation did not specify that all the data necessary to decode all intermediate resolutions can be extracted from the multi-resolution image representation are obtained before any user request to view a given resolution.

Applicant's Remarks: Therefore, Munro discloses the possibility of displaying simultaneously in

the same window several resolution levels, but Munro does not disclose the features of:

(i) obtaining all data corresponding to all possible image resolutions and

(ii)decoding said data before displaying the images (page 10, first paragraph)

Examiner's Response: Applicant's claimed recitation does not require "decoding said data before displaying the images" in the set of claims previously examined. Munro and Deshpande are both references that deal with thumbnail image manipulation. It, therefore, would make sense to combine the two references although displaying a set of thumbnails simultaneously is rather obvious even without this teaching. Deshhpande teaches obtaining the data of the sub-images associated with each of the previously determined resolutions. Examiner's rejection did not rely on Munro to do this.

Applicant's Remarks: "Hence, none of the cited prior art documents discloses or suggests the features of claim 1 by which the data corresponding to all possible resolutions are obtained and decoded before any display to a user."(page 10, second paragraph)

Examiner's Response: Applicant's claimed recitation does not require that all possible resolutions be obtained and decoded before any display to a user. The claims simply require

obtaining the data of the sub-images associated with each of the previously determined resolutions and displaying all the sub-images. The claim does not even require that all the sub-images be displayed at the same time. Deshpande's system is capable of obtaining information the data of the sub-images associated with each of the previously determined resolutions. As stated in Deshpande in column 5, lines 60 to 65, " When the thumbnail image data has been transmitted to the client 24, the data is decoded and displayed on the client display 26 using the client image application 12 alone or in conjunction with a typical browser application 26."

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-10, 12-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Deshpande et al. (US 7,206,804 B1).

Regarding claim 1, Deshpande discloses a method of displaying a digital image for creating a multimedia content, the image being coded in multiple resolutions, characterized in that the 5 method comprising steps consisting of:

- determining the set of resolutions present in the coded image ("1. Get the index file", Deshpande, column 5, line 1; "The index file may comprise an image URL and available resolution data such as the example data below", Deshpande, column 5, line 29 ;"Once the index file 10 has been retrieved by the client, the file is read to determine the lowest resolution available for the target image 22. A minimum resolution above the lowest resolution may be used to ensure that the thumbnail has sufficient detail. Optimum data transfer times are achieved by finding the lowest usable resolution. However, other resolutions below the maximum resolution may be selected as a user preference when the lowest resolution is not desirable. The index file may comprise an image URL and available resolution data such as the example data below.", Despande, column 5, lines 21-30, "Typical menus, buttons and similar methods may be used to interface with the applications. These inputs generally result in requests from the client application 12 and/or browser 16 to send portions of the image bitstream from the server 2 to the client 14. In this manner, a user may select particular portions and resolutions of an image for transmission 29", column 6, lines 2-9, In summary, the set of resolutions present in the coded

(JPEG2000 image) data is available in the index file and the entire set can be determined in order to optimize the data transfer times)

-obtaining the coded data of the sub-images associated with each of the previously determined resolutions (Deshpande, the coded data is transmitted to the client with different sub-portions of the image or sub-images coded for a different resolution as discussed in column 6, lines 5-1; Deshpande, "In the JPEG2000 standard, an image consists of components. An image may be spatially divided into tiles and tile-components, where each tile is independently coded. A tile-component is then divided into resolutions and sub-bands. A resolution can be partitioned into precincts using rectangular grids. A sub-band is divided into code-blocks where each code-block is an independent coding unit. A precinct may consist of a rectangular region of code-blocks in each subband of the same resolution.", column 7, lines 24-33); decoding the obtained coded data so as to obtain a sub-image associated with each previously determined resolution ("the data is decoded and displayed on the client display 26 using the client image application 12 alone or in conjunction with a typical browser application 26", Deshpande, column 5, line 62); and

-displaying all the sub-images ("When the manipulated image information has been received by the client, the image data received via thumbnail image input may be decoded and displayed 30 for viewing by a user.").

Regarding claim 2, Deshpande discloses a method according to Claim 1, characterized in that the display step consists of displaying, in addition to the image at each of said resolutions, information on the volume of the data of each of the sub-images. Deshpande discloses information on the volume of the data of each of the sub-images by depicting each of the images at different sizes which gives the viewer a visual sense of the volume of data of each of the sub-images (see Fig. 9, num. 112, num.114 and Fig. 10, num. 112 and 116).

Regarding claim 4, Deshpande discloses a method according to Claim 1, wherein the method is characterized in that the 20 display step consists of displaying simultaneously all the sub-images (Deshpande, column 7, lines 25-30).

Regarding claim 5, Deshpande discloses a method according to Claim 1, 2 or 3, characterized in that the display step consists of the default display of a sub-image with a predetermined resolution ("Thumbnail image 112 is a low-resolution version of the actual image that has been selected. The thumbnail image 112 may be downloaded much more quickly than the actual image at its highest resolution and allows a user to view the thumbnail to ensure that the image is indeed the desired image and to allow a user to make image customization requests with reference to the thumbnail 112.", Deshpande, column 12, line 14; "Upon viewing thumbnail 112, a user may conclude that a resolution of 640.times.480 is adequate for her present needs.) and viewing windows appear as a watermark corresponding to the other sub-images ("Zoom", Figure 10, numeral 108), selecting one of the watermark windows 25 making it possible to display the

corresponding sub-image ("Consequently, she may access drop-down menu 108 to select the desired resolution from a list of available resolutions. Once a selection is made, the image 114 may be transmitted to the client application 12 and displayed in graphics window 110.", Deshpande, column 12, line 25).

Regarding claim 6, Deshpande discloses a method according to Claim 1, 2 or 3, characterized in that the display step consists of the default display of a sub-image with a predetermined resolution ("Thumbnail image 112 is a low-resolution version of the actual image that has been selected. The thumbnail image 112 may be downloaded much more quickly than the actual image at its highest resolution and allows a user to view the thumbnail to ensure that the image is indeed the desired image and to allow a user to make image customization requests with reference to the thumbnail 112.", Deshpande, column 12, line 14; "Upon viewing thumbnail 112, a user may conclude that a resolution of 640.times.480 is adequate for her present needs.", Deshpande, column 12, line 23) and accessing the display of the other sub-images by activating action buttons ("Typical menus, buttons and similar methods may be used to interface with the applications.", Deshpande, column 6, line 2).

Regarding claim 7, Deshpande discloses a method according to Claim 1, 2, or 3, characterized in that the image is coded to the JPEG2000 format ("employs an HTTP protocol for streaming images in the JPEG2000 format", Deshpande, column 3, lines 24-44).

Regarding claim 8 and 16, Deshpande discloses means of obtaining data of the sub-images differ according to the progression order adopted for the image at the time of its coding vis-à-vis information on resolution, components, spatial position and quality layer ("progress along four axes: layer, component, resolution, and precinct", Deshpande, column 8, lines 10-28).

Regarding claim 9, Deshpande discloses a device for displaying a digital image for creating a multimedia content, the image being coded in multiple resolutions, comprising

- means for determining the set of resolutions present in the

coded image ("1. Get the index file", Deshpande, column 5, line 1; "The index file may comprise an image URL and available resolution data such as the example data below", Deshpande, column 5, line 29 ;"Once the index file 10 has been retrieved by the client, the file is read to determine the lowest resolution available for the target image 22. A minimum resolution above the lowest resolution may be used to ensure that the thumbnail has sufficient detail. Optimum data transfer times are achieved by finding the lowest usable resolution. However, other resolutions below the maximum resolution may be selected as a user preference when the lowest resolution is not desirable. The index file may comprise an image URL and available resolution data such as the example data below.", Despande, column 5, lines 21-30, In summary, the set of resolutions present in the coded (JPEG2000 image) data is available in the index file and the entire set can be determined in order to optimize the data transfer times)

-means for obtaining the coded data of the sub-images associated with each of the previously

determined resolutions (Deshpande, the coded data is transmitted to the client with different sub-portions of the image or sub-images coded for a different resolution as discussed in column 6, lines 5-1; Deshpande, "In the JPEG2000 standard, an image consists of components. An image may be spatially divided into tiles and tile-components, where each tile is independently coded. A tile-component is then divided into resolutions and sub-bands. A resolution can be partitioned into precincts using rectangular grids. A sub-band is divided into code-blocks where each code-block is an independent coding unit. A precinct may consist of a rectangular region of code-blocks in each subband of the same resolution.", column 7, lines 24-33);
means for decoding the obtained coded data so as to obtain a sub-image associated with each previously determined resolution ("the data is decoded and displayed on the client display 26 using the client image application 12 alone or in conjunction with a typical browser application 26", Deshpande, column 5, line 62); and

- means for displaying all the sub-images ("When the manipulated image information has been received by the client, the image data received via thumbnail image input may be decoded and displayed 30 for viewing by a user.").

Regarding claim 10, Deshpande discloses a device according to Claim 9, characterized in that the display means are adapted to display, in addition to the image at each of said resolutions, information on the volume of the data of each of the sub-images. Deshpande discloses information on the volume of the data of each of the sub-images by depicting each of the images

at different sizes which gives the viewer a visual sense of the volume of data of each of the sub-images (see Fig. 9, num. 112, num.114 and Fig. 10, num. 112 and 116).

Regarding claim 12, Deshpande discloses a device according to Claim 9, wherein the device is characterized in that the display means are adapted to display simultaneously all the sub-images(Deshpande, column 7, lines 25-30).

Regarding claim 13, Deshpande discloses a device according to Claim 9, 10 or 11, characterized in that the 25 display means are adapted to display, by default, a sub-image with a predetermined resolution ("Thumbnail image 112 is a low-resolution version of the actual image that has been selected. The thumbnail image 112 may be downloaded much more quickly than the actual image at its highest resolution and allows a user to view the thumbnail to ensure that the image is indeed the desired image and to allow a user to make image customization requests with reference to the thumbnail 112.", Deshpande, column 12, line 14; "Upon viewing thumbnail 112, a user may conclude that a resolution of 640.times.480 is adequate for her present needs.) and watermark windows corresponding to the other sub-images ("Zoom", Figure 10, numeral 108), the selection of one of the watermark windows making it possible to display the corresponding sub-image ("Consequently, she may access drop-down menu 108 to select the desired resolution from a list of available resolutions. Once a selection is made, the image 114 may be transmitted to the client application 12 and displayed in graphics window 110.", Deshpande, column 12, line X)

Regarding claim 14, Deshpande discloses a device according to Claim 9, 10 or 11, characterized in that the display means are adapted to display by default a sub-image with a predetermined resolution ("Thumbnail image 112 is a low-resolution version of the actual image that has been selected. The thumbnail image 112 may be downloaded much more quickly than the actual image at its highest resolution and allows a user to view the thumbnail to ensure that the image is indeed the desired image and to allow a user to make image customization requests with reference to the thumbnail 112.", Deshpande, column 12, line 14; "Upon viewing thumbnail 112, a user may conclude that a resolution of 640.times.480 is adequate for her present needs.", Deshpande, column 12, line 23) and comprise action buttons whose activation displays the other sub-images ("Typical menus, buttons and similar methods may be used to interface with the applications.", Deshpande, column 6, line 2).

Regarding claim 15, Deshpande discloses a method according to Claim 9, 10, or 11, characterized in that the image is coded to the JPEG2000 format ("employs an HTTP protocol for streaming images in the JPEG2000 format, Deshpande, column 3, lines 24-44).

Regarding claim 17, Deshpande discloses a method of creating a multimedia content, characterized in that the method comprises steps consisting of:
selecting a digital image to be inserted in the content ("image file is selected … thumbnail version 112 of that image is transmitted to client image application 12 and displayed to a user … in a browser-like window 100", Deshpande, figure 9, column 12, lines 1-67);

selecting a resolution associated with one of the subimages displayed by means of a display method according to claim 1("resolution of 640x480 is adequate" based on thumbnail 112, Deshpande, figure 9, column 12, lines 1-67) according to claim 1 (see rejection of claim 1 above); and

inserting, in the multimedia content, information on the subimage with the selected resolution ("image 114 may be transmitted to the client application 12 and displayed in graphics window 110" which in within browser-like window 100, Deshpande, figure 9, column 12, lines 1-67).

Regarding **claims 18 and 21**, Deshpande discloses a reference to the digital image in coded form and a parameter indicating the resolution selected (Deshpande column 7, lines 53-67, column 8, lines 1-27).

Regarding claims 19 and 22, Deshpande discloses data representing sub-image in the coded image, at all resolutions up to the selected resolution (Deshpande, column 12, lines 22-67).

Regarding claim 20, Deshpande discloses a device (client computer, Deshpande, figure 1, numeral 14), for creating a multimedia content, characterized in that the device comprises: means for selecting ("client computer 14 running client image application 12" which can be in form of a JPEG2000 enabled client browser, Deshpande, figure 1, numerals 12, 14) a digital image to be inserted in the content ("image file is selected … thumbnail version 112 of that

image is transmitted to client image application 12 and displayed to a user … in a browser-like window 100", Deshpande, figure 9, column 12, lines 1-67);
means for selecting ("client computer 14 running client image application 12" which can be in form of a JPEG2000 enabled client browser, Deshpande, figure 1, numerals 12, 14) a resolution associated with one of the subimages displayed by means of a display method ("resolution of 640x480 is adequate" based on thumbnail 112, Deshpande, figure 9, column 12, lines 1-67) according to claim 1 (see rejection of claim 1 above); and
means for ("client computer 14 running client image application 12" which can be in form of a JPEG2000 enabled client browser, Deshpande, figure 1, numerals 12, 14) inserting, in the multimedia content, information on the subimage with the selected resolution ("image 114 may be transmitted to the client application 12 and displayed in graphics window 110" which in within browser-like window 100, Deshpande, figure 9, column 12, lines 1-67).

Regarding claim 23, Deshpande discloses a communication apparatus (figure 1, numeral 14, "a client computer 14 running client image application", Deshpande, column 4, lines 16-22), characterized in that it comprises a display device (figure 1, numeral 14, monitor, Deshpande) according to claim 9 (see above rejection of claim 9).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Deshpande et al. (US 7,206,804 B1) and Munro et al. (US 20020033837 A1).

Regarding claim 3, while Deshpande discloses a method according to Claim 2, Deshpande does not disclose a method characterized in that the information on the data volume of each of the sub-images comprises a magnification factor with respect to the data volume associated with the smallest resolution and/or the total volume of the binary data associated with each of said resolutions.

Munro teaches a method characterized in that the information on the data volume of each of the sub-images comprises a magnification factor with respect to the data volume associated with the smallest resolution and/or the total volume of the binary data associated with each of said resolutions ("FIG. 8 illustrates the corresponding size of the data file associated with each level of resolution of a displayed image.", Munro, paragraph 46).

Regarding claim 11, while Deshpande discloses a device according to Claim 10, Deshpande does not disclose wherein the device is characterized in that the information on the volume of the data of each of the sub-images comprise a magnification factor with respect to the data volume associated with the smallest resolution and/or the total volume of the binary data associated with each of the said resolutions.

However, Munro teaches wherein the device is characterized in that the information on the volume of the data of each of the sub-images comprise a magnification factor with respect to the data volume associated with the smallest resolution and/or the total volume of the binary data associated with each of the said resolutions ("FIG. 8 illustrates the corresponding size of the data file associated with each level of resolution of a displayed image.", Munro, paragraph 46).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Deshpande's method of customization of digital image to include Munro's feature of associating a total volume of the binary data associated with each of said resolutions in order to make it possible to attribute a quantity or a volume of data for a given resolution.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELISA M. RICE whose telephone number is (571)270-1582. The examiner can normally be reached on 12:00-8:30p.m. EST Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571)272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elisa M Rice/
Examiner, Art Unit 2624

/Vikkram Bali/

Supervisory Patent Examiner, Art Unit 2624